

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Kipp *et al.*
Appl. No.: Not yet assigned
Filed: Concurrently Herewith
For: PLANT *MSH2* SEQUENCES AND METHODS OF USE

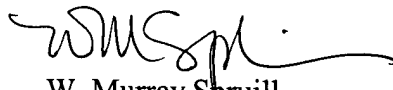
**STATEMENT IN SUPPORT OF FILING A
SEQUENCE LISTING UNDER 37 CFR § 1.821(f)**

Commissioner for Patents
Washington, DC 20231

Sir:

I hereby state that the content of the paper and computer readable copies of the Sequence Listing, submitted concurrently herewith in accordance with 37 CFR § 1.821(c) and (e), are the same.

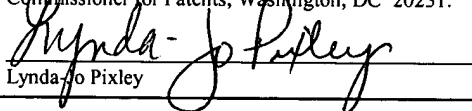
Respectfully submitted,


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I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to Box Patent Application, Commissioner for Patents, Washington, DC 20231.


Lynda Jo Pixley

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/029,065

DATE: 01/15/2002

TIME: 08:08:02

Input Set : A:\196219.txt

Output Set: N:\CRF3\01152002\J029065.raw

3 <110> APPLICANT: May, Gregory
4 Baszczynski, Christopher
5 Zhu, Tong
6 Kipp, Peter
7 Mahajan, Pramod
9 <120> TITLE OF INVENTION: PLANT MSH2 SEQUENCES AND METHODS OF USE
11 <130> FILE REFERENCE: 5839-2 (035839/196219)
C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/029,065
C--> 13 <141> CURRENT FILING DATE: 2001-12-20
13 <160> NUMBER OF SEQ ID NOS: 42
15 <170> SOFTWARE: PatentIn version 3.0
17 <210> SEQ ID NO: 1
18 <211> LENGTH: 3033
19 <212> TYPE: DNA
20 <213> ORGANISM: Nicotiana tabacum
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33 15 20 25
35 ttc ttc aaa acc ctg ccc aag gac cct agg gca gtt cgc ctc ttt gat 147
36 Phe Phe Lys Thr Leu Pro Lys Asp Pro Arg Ala Val Arg Leu Phe Asp
37 30 35 40
39 cgt cgg gac tat tat aca tct cat gga gat gat gca act ttc att gca 195
40 Arg Arg Asp Tyr Tyr Thr Ser His Gly Asp Asp Ala Thr Phe Ile Ala
41 45 50 55
43 gag aca tat tac cac aca aca act gcg tta cga cag ttg ggt aat aga 243
44 Glu Thr Tyr Tyr His Thr Thr Thr Ala Leu Arg Gln Leu Gly Asn Arg
45 60 65 70
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48 Ala Asp Ala Leu Ser Ser Val Ser Val Ser Arg Asn Met Phe Glu Thr
49 75 80 85 90
51 ata gct cgt gac att ctc ttg gag aga atg gac cgt act ctt gaa cta 339
52 Ile Ala Arg Asp Ile Leu Leu Glu Arg Met Asp Arg Thr Leu Glu Leu
53 95 100 105
55 tat gag ggc agt ggt tca aac tgg aga ctg gta aaa agt gga acc cca 387
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59 ggg aat ctt gga agt ttt gag gat att ctg ttt gct aat aat gaa atg 435
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71	ggt	tta	aca	gaa	ttt	cta	gat	gat	agc	cac	ttc	aca	aat	ttg	gag	tct	579
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77				190					195			200					
79	ggc	aaa	tcc	agt	gaa	tac	agg	cct	atg	ttt	gat	gca	ata	tct	aga	tgc	675
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83	ggc	gtg	atg	gta	act	gaa	aga	aag	aaa	act	gaa	ttt	aaa	ggg	aga	gat	723
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91	cga	gat	ttg	gtc	tct	ggg	ttc	gaa	tgt	gca	tca	ggc	gct	ttg	ggg	tgc	819
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95	ata	ctt	tct	tat	gca	gaa	cta	ctt	gcg	gat	gag	agc	aac	tat	gga	aac	867
96	Ile	Leu	Ser	Tyr	Ala	Glu	Leu	Leu	Ala	Asp	Glu	Ser	Asn	Tyr	Gly	Asn	
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103	gct	gct	atg	aga	gca	ctg	aat	gtt	atg	gag	agc	aaa	tca	gat	gct	aat	963
104	Ala	Ala	Met	Arg	Ala	Leu	Asn	Val	Met	Glu	Ser	Lys	Ser	Asp	Ala	Asn	
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120	Asp	Ala	Ala	Leu	Arg	Gln	Asp	Leu	Arg	Gln	His	Leu	Lys	Arg	Ile	Ser	
121		365					370			375							
123	gat	att	gag	cgg	ctg	aca	cac	aat	ctt	gag	agg	aaa	aga	gcc	agt	tta	1203
124	Asp	Ile	Glu	Arg	Leu	Thr	His	Asn	Leu	Glu	Arg	Lys	Arg	Ala	Ser	Leu	
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136	Glu	Arg	Tyr	Ile	Asp	Ser	Leu	Glu
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140	Asn	Lys	Phe	Ile	Gly	Leu	Val	Glu
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168	Lys	Leu	Gly	Asp	Gln	Phe	Gln	Lys
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188	Arg	His	Pro	Cys	Val	Glu	Ala	Gln
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244	Glu	Asp	Phe	Ser	Pro	Ile	Ala	Ile	Ile	Pro	Asn	Asp	Ile	Lys	Glu	Ala	
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247	gct	tca	aaa	cgg	aag	aga	gaa	ttt	gac	cgc	cat	gac	gtg	tct	aga	ggt	2691
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252	Thr	Ala	Arg	Ala	Arg	Gln	Phe	Leu	Gln	Asp	Phe	Ala	Gln	Leu	Pro	Leu	
253					895					900						905	
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264 Phe
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276 <212> TYPE: PRT
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286          20                      25                      30
289 Lys Asp Pro Arg Ala Val Arg Leu Phe Asp Arg Arg Asp Tyr Tyr Thr
290          35                      40                      45
293 Ser His Gly Asp Asp Ala Thr Phe Ile Ala Glu Thr Tyr Tyr His Thr
294          50                      55                      60
297 Thr Thr Ala Leu Arg Gln Leu Gly Asn Arg Ala Asp Ala Leu Ser Ser
298 65          70                      75                      80
301 Val Ser Val Ser Arg Asn Met Phe Glu Thr Ile Ala Arg Asp Ile Leu
302          85                      90                      95
305 Leu Glu Arg Met Asp Arg Thr Leu Glu Leu Tyr Glu Gly Ser Gly Ser
306          100                     105                     110
309 Asn Trp Arg Leu Val Lys Ser Gly Thr Pro Gly Asn Leu Gly Ser Phe
310          115                     120                     125
313 Glu Asp Ile Leu Phe Ala Asn Asn Glu Met Gln Asn Ser Pro Val Ile
314          130                     135                     140
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318 145          150                     155                     160
321 Gly Tyr Val Asp Ile Thr Lys Arg Val Leu Gly Leu Thr Glu Phe Leu
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325 Asp Asp Ser His Phe Thr Asn Leu Glu Ser Ala Leu Val Ala Leu Gly
326          180                     185                     190
329 Cys Arg Glu Cys Leu Val Pro Ala Glu Thr Gly Lys Ser Ser Glu Tyr
330          195                     200                     205
333 Arg Pro Met Phe Asp Ala Ile Ser Arg Cys Gly Val Met Val Thr Glu
334          210                     215                     220
337 Arg Lys Lys Thr Glu Phe Lys Gly Arg Asp Leu Val Gln Asp Leu Gly
338 225          230                     235                     240
341 Arg Leu Val Lys Gly Ser Val Glu Pro Val Arg Asp Leu Val Ser Gly
342          245                     250                     255
345 Phe Glu Cys Ala Ser Gly Ala Leu Gly Cys Ile Leu Ser Tyr Ala Glu
346          260                     265                     270
349 Leu Leu Ala Asp Glu Ser Asn Tyr Gly Asn Tyr Thr Val Lys Gln Tyr
350          275                     280                     285
353 Asn Leu Asn Ser Tyr Met Arg Leu Asp Ser Ala Ala Met Arg Ala Leu

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Use of n and/or Xaa has been detected in the Sequence Listing.
 Review the Sequence Listing to insure a corresponding
 explanation is presented in the <220> to <223> fields of
 each sequence using n or Xaa.

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/029,065

DATE: 01/15/2002

TIME: 08:08:03

Input Set : A:\196219.txt

Output Set: N:\CRF3\01152002\J029065.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application No

L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:1029 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5

L:1054 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6

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L:1165 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11

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L:1205 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13

L:1329 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21

L:1423 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29

L:1444 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30